

OPS/NPMS WORKSHOP

July 14-15, 1998

Houston, Texas

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NPMS Standards

- *Standards for Pipeline and LNG Operator Submissions*
- *Standards for the NPMS National and State Repositories*

Standards for Pipeline and LNG Operator Submissions

■ “Submission Standards”

- ◆ Attribute Data
- ◆ Geospatial Data
- ◆ Metadata

Submission of Data

- Gas transmission (as defined by US DOT) & liquid trunk pipeline data.
- Active Liquefied Natural Gas (LNG) facility data.
- Target goal of 500 foot positional accuracy.

Standards for the NPMS National and State Repositories

■ “Repository Standards”

- ◆ Repository Model
- ◆ Data Processing
- ◆ Data Management
- ◆ Quality Control
- ◆ Data Sharing

The National Pipeline Mapping System (NPMS)

A Method for Creating Pipeline Geospatial Data,
Attribute Data, and Metadata

Standards for Pipeline and LNG Operator Submissions

June 19, 1998

SECTION 1: INTRODUCTION

NPMS Structure

- Consists of:
 - ◆ Multiple State Repositories -- maintains data within their state boundaries.
 - ◆ Single National Repository -- maintains the pipeline data for all other areas.

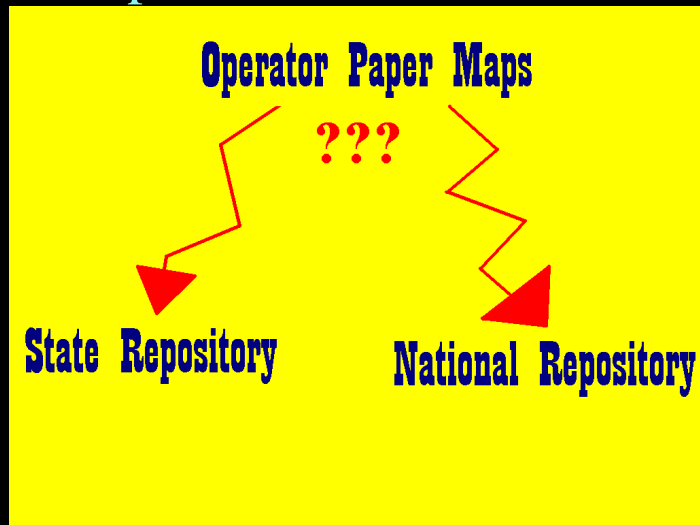
The State Repository

- The NPMS will be made up of State Repositories and a National Repository.
- The State Repositories will be responsible for maintaining the pipeline information within their state boundaries.
- The State Repositories will forward information to the National Repository.

The National Repository

- The National Repository will be responsible for creating & maintaining pipeline data for areas without a State Repository.
- Data entry & maintenance for the National Repository may be performed by several mapping and data contractors.
- The National Repository will be responsible for combining State & National Repository Data into a nation wide coverage.

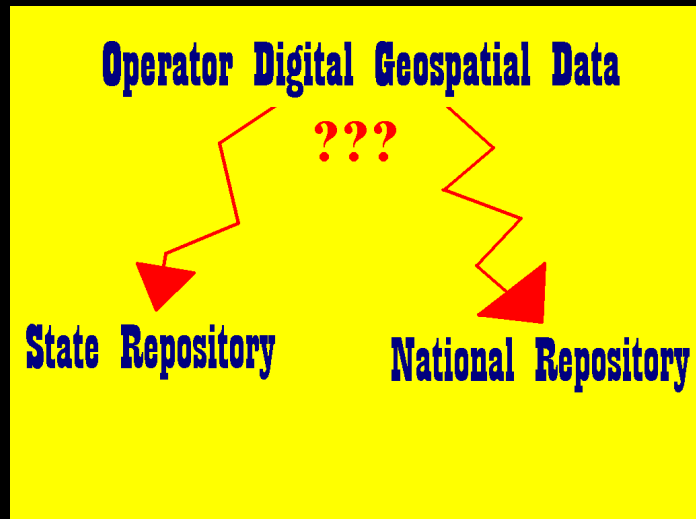
Paper Data Submissions



Paper Map Submission

- STATE REPOSITORY -- send paper maps, located within that state, to the state repository.
- NO STATE REPOSITORY -- send paper maps, located within that state, to the national repository.

Digital Data Submissions



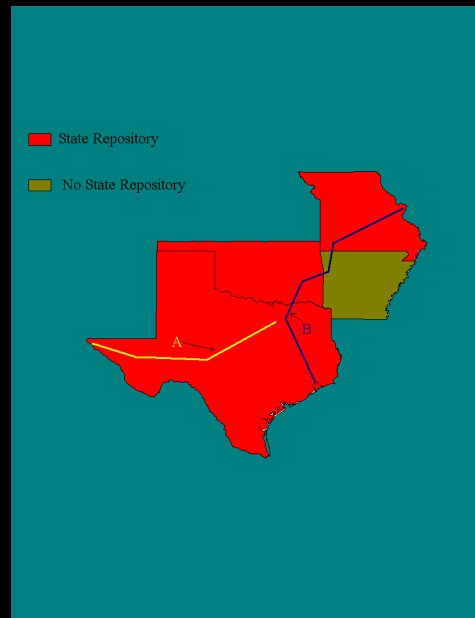
Digital Data Submission

- STATE REPOSITORY -- send digital geospatial data, located within that state, to the state repository OR send the data to the national repository.
- NO STATE REPOSITORY -- send paper maps, located within that state, to the national repository

Digital Data Submission

- The operator has the choice of sending an entire digital data set to the national repository OR dividing the data up and sending to the individual state repositories.

Data Submission Example





SECTION 2: ATTRIBUTE INFORMATION



Attribute Data

- Consists of tabular data representing the characteristics of the pipeline or LNG facility.
- Usually stored within a database management system (DBMS) or a relational database management system (RDBMS).

Attribute Data

■ Attribute Submission Options

- ◆ Contained as part of an exported data file directly from a GIS.
- ◆ File generated by the NPMS attribute template.
- ◆ ASCII text file.
- ◆ Stored as a .DBF file sent separately from the geospatial file.
- ◆ Hand written on submitted hard copy maps.

Attribute Data

■ Rules for Data Input

- ◆ Use only uppercase when defining field names.
- ◆ Use only uppercase when inputting data into the attribute tables.
- ◆ Omit all punctuation other than hyphens and underscores.
- ◆ Be consistent with abbreviations.
- ◆ Remember, provided data that exceeds the field length, will be truncated.

Attribute Data

- Pipeline Attribute Table
 - ◆ Describes Linear Features
- LNG Attribute Table
 - ◆ Describes Point Features

Pipeline Attribute Submissions

- OPER_LINK
 - ◆ Link between the geospatial elements (lines or points) and their respective attribute records. Assigned by the operator's software package (e.g., COVER-ID, MSLINK_ID)
 - ◆ Necessary to ensure that that repositories can re-establish the link between the geospatial and attribute data.
 - ◆ Particularly important for ASCII submissions.

Pipeline Attribute Submissions

■ OPER_LINK

- ◆ 8 digit positive integer value.
- ◆ Required field.
- ◆ Right justified.

Pipeline Attribute Submissions

■ OPID

- ◆ Accounting number assigned by the OPS for user fee payments to the company that physically operates the pipeline.
- ◆ The number is commonly known to the operator's accounting office.
- ◆ The number is also available by contacting Lisa Kokoszka at the OPS at 202-366-4554.

Pipeline Attribute Submissions

■ OPID

- ◆ 5 digit positive integer value.
- ◆ Required field.
- ◆ Right justified.

Pipeline Attribute Submissions

■ OPER_NM

- ◆ The name of the company that physically operates the pipeline.
- ◆ 40 digit character value.
- ◆ Required field.
- ◆ Left justified.

Pipeline Attribute Submissions

■ SYS_NM

- ◆ Assigned the operator.
- ◆ The operator's name for a grouping of pipelines.
- ◆ EXAMPLE: Operator could have a pipeline running from Houston to Colorado and the entire pipeline system is known as the "SNAKE RIVER MAIN LINE."

Pipeline Attribute Submissions

■ SYS_NM

- ◆ 40 digit character field.
- ◆ Required field.
- ◆ Left justified.

Pipeline Attribute Submissions

■ SUBSYS_NM

- ◆ A unique name (within the operating company) for a smaller subsection of a pipeline system.
- ◆ A subset of SYS_NM
- ◆ EXAMPLE: As part of the operators “SNAKE RIVER MAIN LINE”, the system is divided into smaller sub-systems, one of which is the “SNAKE RIVER EAST BRANCH.”

Pipeline Attribute Submissions

■ SUBSYS_NM

- ◆ 40 digit character field.
- ◆ Optional field.
- ◆ Left justified.

Pipeline Attribute Submissions

■ PLINE_ID

- ◆ This is a unique identifier (within the operating company) for a specific pipeline segment within a system or group of pipelines.
- ◆ A subset of SYS_NM and SUBSYS_NM.
- ◆ EXAMPLE: The “SNAKE RIVER EAST BRANCH” is made up of 20 individually named smaller pipeline segments, one of which is the “M 260.”

Pipeline Attribute Submissions

■ PLINE_ID

- ◆ 20 digit character field.
- ◆ Required field.
- ◆ Left justified.

Pipeline Attribute Submissions

■ DIAMETER

- ◆ The nominal diameter of the pipeline, in inches.
- ◆ 2 digit positive integer value.
- ◆ Optional field.
- ◆ Right justified.

Pipeline Attribute Submissions

■ COMMODITY1

- ◆ Abbreviation for the primary or most common commodity carried by the pipeline.
- ◆ HG, CRD, LPG, NG, PRD, AA, CO2, NGL, HVL are valid responses.
- ◆ 3 digit character field.
- ◆ Required field.
- ◆ Left justified.

Pipeline Attribute Submissions

■ COMMODITY2

- ◆ Abbreviation for the secondary commodity carried by the pipeline.
- ◆ Should be filled in if the pipeline transports more than one commodity.
- ◆ HG, CRD, LPG, NG, PRD, AA, CO2, NGL, HVL are valid responses.
- ◆ 3 digit character field.
- ◆ Optional field.
- ◆ Left justified.

Pipeline Attribute Submissions

■ COMMODITY3

- ◆ Abbreviation for the tertiary commodity carried by the pipeline.
- ◆ HG, CRD, LPG, NG, PRD, AA, CO2, NGL, HVL are valid responses.
- ◆ 3 digit character field.
- ◆ Optional field.
- ◆ Left justified.

Pipeline Attribute Submissions

■ CMDTY_DESC

- ◆ Descriptive information on the commodities carried.
- ◆ A listing of phased flow products or the names of the exact products transported may be listed.
- ◆ EXAMPLE: “JET FUEL”
- ◆ 40 digit character field.
- ◆ Optional field.
- ◆ Left justified.

Pipeline Attribute Submissions

■ INTERSTATE

- ◆ (Y)es / (N)o designator to identify whether the pipeline is an interstate pipeline (refer to the OPS definition in the Glossary of the “Submission Standards.”)
- ◆ 1 digit character field
- ◆ Required field.

Pipeline Attribute Submissions

■ STATUS_CD

- ◆ Identifies the current status of the pipeline.
- ◆ A (active), I (inactive), B (abandoned), R (retired), S (sold) are valid responses.
- ◆ 1 digit character field.
- ◆ Required field.

Pipeline Attribute Submissions

■ QUALITY_CD

- ◆ Operator's estimate of the positional accuracy of the submitted geospatial pipeline data.
- ◆ How good is the data?
- ◆ E (excellent: within 50 feet), V (very good: 50-300 feet), G (good: 301-500 feet), P (poor: 501-1000 feet), U (unknown) are valid responses.
- ◆ 1 digit character value.
- ◆ Required field.

Pipeline Attribute Submissions

■ REVIS_CD

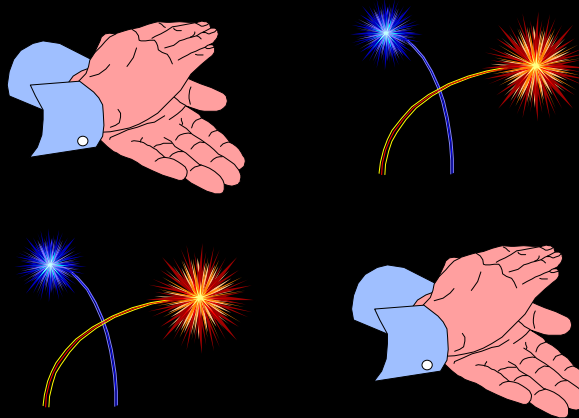
- ◆ Identifies, to the repository, how to treat the data submission.
- ◆ A (addition), M (modification), D (deletion) are valid responses.
- ◆ 1 digit character field.
- ◆ Required field.

Pipeline Attribute Submissions

■ META_NAME

- ◆ The name of the metadata file (created from the NPMS metadata template) associated with this data.
- ◆ Comply with DOS (8.3 format) naming conventions.
- ◆ EXAMPLE: PL071598.met
- ◆ 12 digit character value.
- ◆ Required.
- ◆ Left justified.

Conclusion of the Pipeline Attribute Submission Tables



LNG Attribute Submissions

■ Previously discussed attributes.

- ◆ OPER_LINK
- ◆ OPID
- ◆ OPER_NM
- ◆ STATUS_CD
- ◆ QUALITY_CD
- ◆ REVIS_CD
- ◆ META_NAME

LNG Attribute Submissions

■ LNG_NM

- ◆ Assigned by the operator.
- ◆ The operator's name for the LNG facility.
- ◆ 40 digit character field.
- ◆ Required field.
- ◆ Left justified.

LNG Attribute Submissions

■ LNG_ID

- ◆ This is a unique identifier (within the operating company) for an LNG facility.
- ◆ 40 digit character field.
- ◆ Required field.
- ◆ Left justified.

SECTION 3: GEOSPATIAL DATA

Geospatial Data

- Consists of pipeline data that has been geographically referenced to known points on the surface of the Earth.
 - ◆ Latitude & longitude coordinate values representing the actual pipeline and pipeline ROW location. (linear features)
 - ◆ Latitude & longitude coordinate values representing the location of the LNG facility. (point features)

PART A: DIGITAL GEOSPATIAL SUBMISSIONS

Creating Digital Pipeline Data

- Digital data is preferred over paper maps.
- Several sources useful in creating digital pipeline data:
 - ◆ USGS DLG and DRG files (heads-up digitizing).
 - ◆ Operator alignment sheets.
 - ◆ USGS paper quads.

Digital Data Submission

- Considerations when submitting digital geospatial data:
 - ◆ Geographic coordinates (latitude/longitude).
 - ◆ Data should be in decimal degrees using the NAD83 or WGS84 Datum.
 - ◆ 500' accuracy goal.
 - ◆ Determine the best format for submitting data.

Digital Data Submission Formats

- ESRI ARC/INFO Export
 - ◆ Submit an .E00 file (geospatial and attribute data.)
- ESRI Generate
 - ◆ Submit an ASCII format file (geospatial data) and a .DBF file (attribute data.)

Digital Data Submission Formats

■ ESRI ArcView

- ◆ Submit a .SHP file (geospatial data), the .SHX (index file), and the .DBF file (attribute data).

■ Intergraph FRAMME

- ◆ Microsoft Access Format
- ◆ FRAMME Loader SEF Format
- ◆ Each format contains both the geospatial and attribute data.

Digital Data Submission Formats

■ Intergraph Microstation and non-FRAMME

- ◆ Submit a .DGN file (geospatial data) and the attribute table.

■ MapInfo

- ◆ Submit the .MIF, .MID, and projection (ASCII format) files for each table.

Digital Data Submission Formats

- AutoCAD -- must be geographically referenced before it is acceptable to the NPMS. In addition, must conform to the datum, projection, scale, and control requirements in the standards.
 - ◆ Submit a 12 AutoCAD .DWG file (geospatial data) and the attribute table.

Digital Data Submission Formats

- Generic Digital Data -- Pipelines
 - ◆ ASCII format file.
 - ◆ The file represents the geospatial data.
 - ◆ Each line segment is made up of at least two coordinate pairs...beginning and ending points.
 - ◆ Additional coordinate pairs represent shape points along the line segment.

Digital Data Submission Formats

■ Generic Digital Data -- Pipelines

- ◆ A unique OPER_LINK identifies each line segment.
- ◆ An END identifies the end of a line segment.
- ◆ An additional END identifies the end of the file.

Geospatial File Attributes Pipelines

■ OPER_LINK

- ◆ Link between the geospatial elements (lines or points) and their respective attribute records. Assigned by the operator's software package (e.g., COVER-ID, MSLINK_ID)
- ◆ Necessary to ensure that that repositories can re-establish the link between the geospatial and attribute data.
- ◆ Particularly important for ASCII submissions.

Geospatial File Attributes Pipelines

■ OPER_LINK

- ◆ 8 digit positive integer value.
- ◆ Required field.
- ◆ Right justified.

Geospatial File Attributes Pipelines

■ LONGITUDE

- ◆ Longitude, in decimal degrees (no projection), for every stored pipeline begin, shape, and end point - minimum of five decimal places required. Western Hemisphere longitude should be a negative value.
- ◆ 12 digit real value.
- ◆ Required field.
- ◆ Right justified.

Geospatial File Attributes Pipelines

■ LATITUDE

- ◆ Latitude, in decimal degrees (no projection), for every stored pipeline begin, shape, and end point - minimum of five decimal places required. Northern Hemisphere should be a positive value.
- ◆ 12 digit real value.
- ◆ Required field.
- ◆ Right justified.

Digital Data Submission Formats

■ Generic Digital Data -- LNG Facilities

- ◆ ASCII format file.
- ◆ The file represents the geospatial data.
- ◆ Each point is made up of a coordinate pair.
- ◆ A unique OPER_LINK identifies each point.
- ◆ An END identifies the end of the file.

Geospatial File Attributes LNG Facilities

■ OPER_LINK

- ◆ Link between the geospatial elements (lines or points) and their respective attribute records. Assigned by the operator's software package (e.g., COVER-ID, MSLINK_ID)
- ◆ Necessary to ensure that that repositories can re-establish the link between the geospatial and attribute data.
- ◆ Particularly important for ASCII submissions.

Geospatial File Attributes LNG Facilities

■ OPER_LINK

- ◆ 8 digit positive integer value.
- ◆ Required field.
- ◆ Right justified.

Geospatial File Attributes LNG Facilities

■ LONGITUDE

- ◆ Longitude, in decimal degrees (no projection), for each LNG facility point - minimum of five decimal places required. Western Hemisphere longitude should be a negative value.
- ◆ 12 digit real value.
- ◆ Required field.
- ◆ Right justified.

Geospatial File Attributes LNG Facilities

■ LATITUDE

- ◆ Latitude, in decimal degrees (no projection), for each LNG facility point - minimum of five decimal places required. Northern Hemisphere should be a positive value.
- ◆ 12 digit real value.
- ◆ Required field.
- ◆ Right justified.

PART B: PAPER GEOSPATIAL SUBMISSIONS

Hardcopy Representation

- The operator will submit pipeline & LNG facility location information on USGS 7.5' Quadrangle Maps (1:24,000).
- Where 1:24,000 Quads don't exist, use the largest scale USGS maps available.

Hardcopy Representation

- Pipeline inventory and alignment sheets require a minimum of four geo-referenced control points. Must also include the projection parameters, datum, and graphic scale.
- Third-party base maps may be acceptable if they contain the four geo-referenced control points. Must also include the projection parameters, datum, and graphic scale.

Hardcopy Representation

- If submitting pipeline inventory, alignment sheets, or third-part base maps, check with the NPMS national repository to ensure your maps are acceptable.
- Explanation of line & labeling symbology used by the operator on the hardcopy map (Legend).

Hardcopy Representation

- Submitted maps may be originals or reproductions.
- If submitting a reproduction, the submitted map will not be accepted if the scale has been modified from the original map scale.
- Submitted Quad maps should include the entire sheet and not be “cut down.”

Drafting Pipeline Locations on Paper Base Maps

- Two options:
 - ◆ Individual Pipelines
 - ◆ Pipeline right-of-way (ROW)
 - ✦ Delineate the pipeline with a thin solid line in indelible ink. If multiple pipelines on the same map, used different color markers to distinguish the pipelines.
 - ✦ For pipeline ROW, identify on the map the number of pipelines that are within the ROW.

Drafting LNG Facilities on Paper Base Maps

- Draft a small square or circle in indelible ink on the map.
- The location should represent the approximate center of the facility.

Annotate Attribute Data on Paper Base Maps

- Preferred that operators provide the attribute data in one of the before mentioned formats.
- Operators also have the option of annotating the pipeline and LNG facility attributes directly on the submitted maps.
- Each required attribute field defined in the standards must be depicted on the map.
- Remember the field definition types and length restrictions.

Submitting Paper Maps

- Preference for USGS 7.5 minute quads
- Pipelines and LNG facilities should be drafted to be within the 500' accuracy standard.
- Draft the pipeline using a thin solid line in indelible ink.
- Draft the LNG facility with a small circle or square identifying the facilities approximate center

Submitting Paper Maps

- Clearly label each pipeline with its' SYS_NM.
- If the system is divided into sub systems, clearly mark each SUBSYS_NM on the map.
- Label each pipeline segment with its' PLINE_ID.

Submitting Paper Maps

- In the margin of each quad, build a legend:
 - ◆ operator name.
 - ◆ names of the various pipelines on the quad.
 - ◆ color used to distinguish each pipeline.
- Consecutively number each quad (for a given submission) using the page/page format. EXAMPLE: “1/34” or “1 of 34”)

Submitting Paper Maps

- Provide the attribute data in one of the approved formats or annotate directly on each map.
- Provide metadata.

Conclusion of Geospatial Data



SECTION 4: METADATA

Metadata

- Metadata: “data about data.”
- Describes the content, quality, condition, & other characteristics of the data.
- Developed by the Federal Geographic Data Committee (FGDC).
- Requirement for federal agencies.

Metadata

- Operator submitted metadata will answer the following questions:
 - ◆ Who created the submitted data?
 - ◆ When was the data created?
 - ◆ How was the data created?
 - ◆ What was the source of the data?
 - ◆ Who is the contact for the repository in case of questions about the data?

Metadata

- The NPMS is collecting only the minimal metadata needed.
- Data Transmittal Form -- developed for the NPMS. Asks for metadata in easy-to-understand sentences.
 - ◆ Hardcopy format.
 - ◆ Digital format.

Metadata

- Operator contact information replaced with repository contact information upon receipt by the repository.
- Single metadata file required when the metadata are the same for an entire data submission.
- Multiple metadata files are required when there is a change in any of the metadata.

Metadata

- For all of you who are glutton for punishment, additional information on metadata is available at the FGDC WEB site.

- www.fgdc.gov

Data Transmittal Form Example



SECTION 5: SUBMITTING THE DATA



Submitting the Data

- Attribute Data
- Geospatial Data
 - ◆ Paper Submissions
 - ◆ Digital Submissions
- Metadata



GLOSSARY OF PIPELINE GIS-RELATED TERMS



APPENDIX A - PAPER SUBMISSION EXAMPLE

APPENDIX B: DATA TRANSMITTAL FORM



Operations Overview for Operators

- If a state has a mandate for pipeline operators, OPS will work with those states in an attempt to mesh requirements.
- GOAL: To alleviate operators making multiple submissions.
- The operator is only responsible for working with the NPMS in resolving potential data problems.

Operations Overview for Operators

- What happens to the operator data after the submission:
 - ◆ Data is reviewed for completeness and accuracy.
 - ◆ The operator is contacted if there are any discrepancies in the submission.
 - ◆ Digital and paper data are converted into the format requirements of the repository.

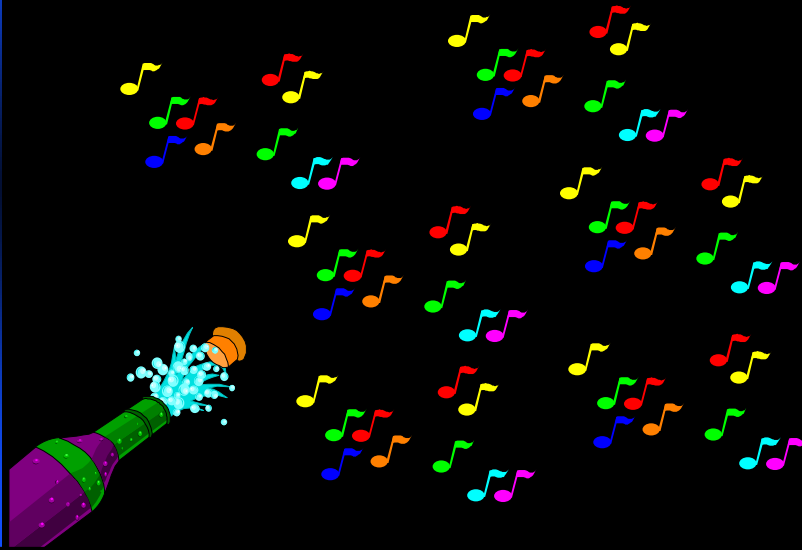
Operations Overview for Operators

- What happens to the operator data after the submission:
 - ◆ After re-formatting, the data will proceed through a series of quality control procedures.
 - ◆ A random sampling of submitted data will result in check plots being returned to the operator for quality control.
 - ◆ The repository will incorporate any operator changes into the data.

Operations Overview for Operators

- What happens to the operator data after the submission:
 - ◆ Operator data at the state repositories will flow to the national repository and vice versa.
 - ◆ The digital operator data will be provided back to the operators who submitted hard copy maps.
 - ◆ The repositories will continue working with the operators to ensure that the operator data is kept current and that any new systems or facilities are incorporated into the NPMS.

TIME TO CELEBRATE!!!!



The National Pipeline Mapping System (NPMS)

A Method for Creating Pipeline Geospatial Data,
Attribute Data, and Metadata

Standards for the NPMS National and
State Repositories

June 19, 1998



SECTION 1 - GENERAL TOPICS



SECTION 2 - NPMS REPOSITORY DESIGN

Design Overview

■ State Repository:

- ◆ Maintains the pipeline data for their state.
- ◆ Stores all data elements identified in the “Repository Standards.”
- ◆ Is not precluded from collecting more data than is required for the NPMS.
- ◆ Works with the operators in resolving problems with the submitted data.

Design Overview

■ State Repository:

- ◆ Works with the national repository and adjacent state repositories in ensuring a seamless national pipelines database.
- ◆ Provides digital data back to the operators who submitted hard copy maps.

Design Overview

■ National Repository:

- ◆ Maintains the pipeline data for those states without a state repository.
- ◆ Stores all data elements identified in the “Repository Standards.”
- ◆ Works with the operators in resolving problems with the data.
- ◆ Collects and provides data to the state repositories.

Design Overview

■ National Repository:

- ◆ Is ultimately responsible for ensuring that the submitted metadata conforms with the latest FGDC Metadata Standards.
- ◆ Is ultimately responsible for the quality and content of the data.
- ◆ Provides digital data back to the operators who submitted hard copy maps.



SECTION 3 PROCESS MANAGEMENT



Process Questions to Address

- Paper Submissions
 - ◆ Scale?
 - ◆ Projection?
 - ◆ Control?
 - ◆ Color and Symbology?
 - ◆ Legend?

Process Questions to Address

■ Paper Submissions

- ◆ Facility Labeling?
- ◆ Attribute Data?
- ◆ Linkage?
- ◆ Edgematching?
- ◆ Metadata?

Process Questions to Address

■ Digital Submissions

- ◆ Format?
- ◆ Projection?
- ◆ Linkage?
- ◆ Topology?
- ◆ Metadata?

SECTION 4 - NPMS MAINTENANCE PROCEDURES

Maintenance Responsibilities

- Develop procedures to track original documents and files.
- Date stamp and eventually archive all data.
- Develop a document control system.
- Develop procedures to process data flagged as a modification or deletion.

Maintenance Responsibilities

- The national repository will develop procedures to notify state repositories of receipt of operator data and provide copies.
- Develop procedures to ensure that sales transactions are reflected in the NPMS database.
- Update the metadata to reflect changes in the geospatial data.

SECTION 5 - NPMS DATA STORAGE PROCEDURES

Storage Responsibilities

- Repositories will develop safeguards to ensure against the loss of digital data.
- Each repository is required to meet the following criteria:
 - ◆ Incremental backups every 24 hours.
 - ◆ Full backups once per week and per month.
 - ◆ Create a system emergency recovery tape.

Storage Responsibilities

- Each repository is required to meet the following criteria:
- Develop file-naming schemes for all submitted. data
 - ◆ Prepare written documents detailing backup and disaster recovery procedures.
 - ◆ Store backup media in a safe and secure area.

Storage Responsibilities

- Develop procedures for receiving, handling, and storing documents and data files.
- Isolate NPMS-related documents and data.
- Develop a filing system for the safe and secure storage of documents.

SECTION 6 - WORKING WITH CLIENTS

Client Responsibilities

- Provide data to NPMS clients:
 - ◆ Pipeline operators.
 - ◆ Governmental agencies.
 - ◆ General public.
- Work with the OPS in developing products:
 - ◆ Maps.
 - ◆ ASCII data sets.
 - ◆ Image data sets.

Client Responsibilities

- Provide complete processed digital data sets of the operators' back to the operator.
- Assist operators in migrating to a digital environment.
- Develop along with the OPS, procedures for receiving and handling client feedback.
- Assist the OPS in public relations for the NPMS.

APPENDIX A INSTRUCTIONS FOR PROCESSING SUBMITTED DATA

Instructions for Paper Maps

■ Key points:

- ◆ Check the content of the data for completeness.
- ◆ Notify the operator in writing of the receipt of the data.
- ◆ Time stamp documents.
- ◆ Start transaction logging and version controls.
- ◆ Verify control points
- ◆ Digitize linear and point features.

Instructions for Paper Maps

■ Key points:

- ◆ Data enter hardcopy attribute and metadata.
- ◆ Convert digital attribute and metadata.
- ◆ Link the geospatial and attribute files.
- ◆ Perform edgematching.
- ◆ Develop random sampling to produce check plots for internal QC.
- ◆ Provide check plots to the operators for QC.

Instructions for Paper Maps

■ Key points.

- ◆ Incorporate QC changes.
- ◆ Modify the metadata to be compliant with FGDC Metadata Standards.
- ◆ Replace operator contact information in the metadata with repository contacts.
- ◆ Notify the operator when the data set has finished processing and been incorporated into the NPMS.

Instructions for Digital Geospatial Data

■ Key points:

- ◆ Check the submitted data for viruses.
- ◆ Check the content of the data for completeness.
- ◆ Notify the operator in writing of the receipt of the data.
- ◆ If necessary, notify the state repository.
- ◆ Log all media for date, file name(s), content, and sender.

Instructions for Digital Geospatial Data

■ Key points:

- ◆ Start transaction logging and version controls.
- ◆ Perform editing, edgematching, and rubbersheeting on the geospatial data.
- ◆ Convert digital attribute and metadata.
- ◆ Link the geospatial and attribute files.
- ◆ Develop random sampling to produce check plots for internal QC.
- ◆ Provide check plots to the operators for QC.

Instructions for Digital Geospatial Data

■ Key points:

- ◆ Incorporate QC changes.
- ◆ Modify the metadata to be compliant with FGDC Metadata Standards.
- ◆ Replace operator contact information in the metadata with repository contacts.
- ◆ Notify the operator when the data set has finished processing and been incorporated into the NPMS.

APPENDIX B - REPOSITORY ATTRIBUTE TABLES

Repository Field Definitions

- The repositories will store data in accordance with the “Repository Standards.”
- There are four related tables:
 - ◆ Geospatial table.
 - ◆ NPMS Attribute table.
 - ◆ Metadata table.
 - ◆ Sub Repository Lookup Table

Repository Field Definitions

- The repositories will collect and maintain additional attributes for internal uses.
- The discussion is limited to only the attributes not previously discussed in the “Submission Standards” section.
- The additional field attributes are the same for both pipelines and LNG facilities.

Repository Field Definitions

■ DATA _RCV (NPMS Attribute Table)

- ◆ Date stamp for the date the repository received the operator data.
- ◆ 8 digit character value.
- ◆ Required field.
- ◆ Left justified.

Repository Field Definitions

■ SUBREPOSCD (NPMS Attribute Table)

- ◆ The two letter postal code for the state repository processing the data. If processed by the national repository, enter "NR."
- ◆ 2 digit character value.
- ◆ Required field.
- ◆ Left justified.

Repository Field Definitions

■ PRIM_PATH (Metadata Table)

- ◆ Full path name to the revised metadata file, as defined by the repository.
- ◆ 40 digit character value.
- ◆ Required field.
- ◆ Left justified.

Repository Field Definitions

■ META_PRIM (Metadata Table)

- ◆ The name of the revised metadata file - DOS 8.3 file naming convention.
- ◆ 12 digit character value.
- ◆ Required field.
- ◆ Left justified.

Repository Field Definitions

■ NAME_PATH

- ◆ Full path name to the original metadata file, as defined by the operator.
- ◆ 40 digit character field.
- ◆ Required field.
- ◆ Left justified.

Repository Field Definitions

■ META_NAME (Metadata Table)

- ◆ The name of the revised metadata file - DOS 8.3 file naming conventions.
- ◆ 12 digit character value.
- ◆ Required field.
- ◆ Left justified.

Repository Field Definitions

■ SUBREPOSNM (Sub Repository LUT)

- ◆ Name of the sub-repository that processed the data. If processed by the national repository, enter “NATIONAL REPOSITORY.”
- ◆ 40 digit character value.
- ◆ Required field.
- ◆ Left justified.

Thanks for Attending! Just remember, if the past two days weren't enough, you have three more opportunities to hear it again!!!!!!!!!!